



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,018	04/22/2002	Karen Briley-Saebo	NIDN-10427	3572

36335 7590 07/31/2006

GE HEALTHCARE, INC.  
IP DEPARTMENT  
101 CARNEGIE CENTER  
PRINCETON, NJ 08540-6231

EXAMINER
----------

SMITH, RUTH S

ART UNIT	PAPER NUMBER
----------	--------------

3737

DATE MAILED: 07/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/018,018

Applicant(s)

BRILEY-SAEBO ET AL.

Examiner

Ruth S. Smith

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 14-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 14-15, 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuhn. The claims are directly readable on Kuhn which discloses MR imaging whereby a catheter filled with a blood pool contrast agent (column 6, lines 20-35) is placed into the vasculature of a patient and an MR image of at least a part of the body containing the catheter is generated. When the catheter reaches its desired location the contrast agent is then injected into the arteries surrounding the catheter and an image is obtained. The image of the contrast agent surrounding the catheter tip would inherently allow the catheter to be visualized due to its lack of signal in the image obtained. With respect to claim 25, this limitation is inherent in the method disclosed.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhn in view of Gunther et al. Kuhn discloses MR imaging whereby a catheter filled with a blood pool contrast agent (column 6, lines 20-35) is placed into the vasculature of a patient and an MR image of at least a part of the body containing the catheter is generated. When the catheter reaches its desired location the contrast agent is then injected into the arteries surrounding the catheter and an image is obtained. The image of the contrast agent surrounding the catheter tip would inherently allow the catheter to

be visualized due to its lack of signal in the image obtained. Kuhn fails to specifically disclose the blood pool contrast agents used. Gunther et al disclose MR blood pool contrast agents. The contrast agents are as set forth in claims 16-19. It would have been obvious to one skilled in the art to have modified Kuhn such that the blood pool contrast agents used are those disclosed by Gunther et al. Such a modification merely involves the selection of a known type of blood pool contrast agent for those used in the method of Kuhn. With respect to claims 20-24, Gunther et al discloses the use of these materials and positive and negative contrast agents which use differences in T1 and T2 as set forth.

Claims 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhn in view of Ericcson et al. Kuhn discloses MR imaging whereby a catheter filled with a blood pool contrast agent (column 6, lines 20-35) is placed into the vasculature of a patient and an MR image of at least a part of the body containing the catheter is generated. When the catheter reaches it desired location the contrast agent is then injected into the arteries surrounding the catheter and an image is obtained. The image of the contrast agent surrounding the catheter tip would inherently allow the catheter to be visualized due to its lack of signal in the image obtained. Kuhn fails to specifically disclose the specific types of imaging sequences set forth. The use of the specific types of imaging sequences set forth in claims 26-27 are old and well known and taught for example by Ericcson et al. It would have been obvious to one skilled in the art to have modified Kuhn such that the imaging sequences used are as taught by Ericcson et al. Such a modification merely involves the selection of a known type of imaging sequences used in MR contrast enhanced imaging.

Claims 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhn in view of Prince ('619) and Filler et al. Kuhn discloses MR imaging whereby a catheter filled with a blood pool contrast agent (column 6, lines 20-35) is placed into the vasculature of a patient and an MR image of at least a part of the body containing the catheter is generated. When the catheter reaches it desired location the contrast agent

is then injected into the arteries surrounding the catheter and an image is obtained. The image of the contrast agent surrounding the catheter tip would inherently allow the catheter to be visualized due to its lack of signal in the image obtained. Kuhn fails to specifically disclose the specific types of contrast agent and imaging parameters. Prince discloses MR imaging using a blood pool contrast agent and small flip angles combined with short echoes as well as sequences that employ larger flip angles and longer echo times. Filler et al disclose the use of a blood pool contrast agent that includes an iron oxide. It would have been obvious to one skilled in the art to have modified Kuhn such that the contrast agent includes iron oxide and the flip angles are between 20 and 90 degrees with echo times being less than 10 ms. Such a modification merely involves the selection of known types of blood pool contrast agents and known imaging sequences used in contrast enhanced MR imaging procedures.

### ***Response to Arguments***

Applicant's arguments filed July 10, 2006 have been fully considered but they are not persuasive. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that the image provided shows either the position or the direction of the catheter moving towards its desired location) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth S. Smith whose telephone number is 571-272-4745. The examiner can normally be reached on M-F 7:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Ruth S. Smith', with a stylized, cursive script.

Ruth S. Smith  
Primary Examiner  
Art Unit 3737

RSS